

Oklahoma State University Institute of Technology
Face-to-Face Common Syllabus
Spring 2018

OPT 2314: PREFAB AND PEDORTHIC TECHNIQUES

Prefabricated orthotic fitting is a clinical course in which students demonstrate patient management procedures for fitting, adjustment, and repair of prefabricated orthoses. Activities include those within the Certified Orthotic Fitter scope of practice as defined by the American Board for Certification in Orthotics, Prosthetics & Pedorthics. The Pedorthic module provides an in-depth examination of orthotic management strategies for the various disorders and injuries of the foot and ankle. Topics and activities include design criteria, biomechanical assessment of the foot, gait analysis, and shoe modification. Theory/Lab. (An additional \$250 charge for lab and material fees applies.)

Course Purpose:

The purpose of Prefab and Pedorthic Techniques is to prepare the learner to execute the basic patient management activities associated with the selection and fitting of prefabricated orthoses.

Type of Course: Theory/Lab

Credit Hours: 4

Total clock hours of theory per semester: 25;

Total clock hours of lab per semester: 75;

Total clock hours of clinical per semester: 0.

Class Length: Semester (15 weeks)

Class Days and Times: M/W; 1:00p.m. - 4:20p.m.

Prerequisites: N/A

Instructor Name: Jennifer Block

Instructor Phone: (918) 293-5324

Office: Orthotics and Prosthetic Bldg., Room 132D

Instructor Email: jblock@okstate.edu

Contact: My preferred method of contact is email. Please allow 24-48 hours to return your correspondence during the normal work week.

Instructor's Office Hours: M/W/F, 8:30a.m.-10:00a.m.

School Name: Nursing and Health Sciences

School Main Phone: 918-293-5337

REQUIRED TEXT, REFERENCES, AND MATERIALS

Texts: Sieg, Kay and Sandra Adams. *Illustrated Essentials of Musculoskeletal Anatomy.*

References (Optional): Salter, Robert. *Textbook of Disorders and Injuries of the Musculoskeletal System.*

Materials: Provided by Orthotic and Prosthetic Technologies Program

Uniform/Tools: Safety glasses

Estimated Cost for Materials: \$250

Estimated Cost for Uniform/Tools: \$5.00

Optional Resources: N/A

Upon completion of the course, students should:

Course Objectives	Assessment of Objectives
Identify musculoskeletal anatomy including bones, muscles, and nerves	Final Exam (S)
Perform patient assessments	Fitting Evaluation (F)
Fit prefabricated orthotic devices within accepted fitting parameters	Fitting Evaluation (F)
Write comprehensive SOAP notes	Homework (F)
Identify major pathologies managed with prefabricated orthotic devices	Quiz, Exam (F)
Identify major pathologies of the foot and ankle	Quiz, Exam (F)
Fabricate common pedorthic devices	Fabrication Projects (F)

Aspects of the course objective assessments may be used in the university's assessment of student learning. If applicable, an asterisk (*) above indicates this assignment is used in the university assessment program.

COURSE ACTIVITIES

In this course students will:

- Identify basic musculoskeletal anatomy.
- Participate in discussions regarding pathological conditions.
- Participate in class activities on patient measurement and interpretation of orthometry forms.
- Develop measurement and selection techniques for prefabricated orthoses.
- Measure, select, adjust, fit and repair prefabricated orthoses.
- Design, manufacture, modify, adjust, and repair pedorthic items.
- Contribute to discussions on patient management skills.
- Fabricate orthoses for the management of pedorthic pathologies.
- Assess, evaluate, measure patients in order to select and fit orthotic and pedorthic items.
- Participate in discussions regarding professional responsibilities and scopes of practice in the orthotic industry.
- Practice safe appropriate lab and equipment procedures.

EVALUATION - GRADES WILL BE BASED ON THE QUALITY AND COMPLETION OF THESE TASKS:

Grade Calculation

Your grade will be calculated in the following manner:

25%	Quizzes	Safety and Practice Management
		Cervical Spine
		LS Spine
		Upper Extremity
		Lower Extremity
35%	Fabrication Projects	Soft Foot Orthosis
		UCBL Orthosis
		Partial Foot Prosthesis
20%	Fitting Evaluations and Homework*	
20%	Exams	Prefabricated Orthotics Final*
		Pedorthics Final
Total	100%	

OSUIT Grading Scale	
A	= 90%-100%
B	= 80%-89%
C	= 70%-79%
D	= 60%-69%
F	= 59% & below

*The student's grade for this assignment will be used in the university's assessment of student learning. A 70% competency or higher receives a Pass rating. This Pass/Fail rating is independent of the student's course grade.

Prefabricated Orthotic Fitter Competency Calculation†

In order to ensure compliance with ABC and BOC accreditation standards for Orthotic Fitter pre-certification requirements, your competency will be determined in the following manner:

25%	Quizzes	Safety and Practice Management
		Cervical Spine
		LS Spine
		Upper Extremity
		Lower Extremity
25%	Fitting Evaluations	
<u>50%</u>	Prefabricated Orthotics Final Exam	
Total	100%	

†*This calculation is used to determine whether the student has achieved minimum competency to receive a certificate of completion for the Orthotic Fitter Precertification Course, but is not used to calculate the final grade for OPT 2314. 75% or greater is required to demonstrate competency.*

Daily and/or weekly quizzes, small weekly assignments and similar type projects: Normal return time to student by next class meeting or no later than one (1) week.

Extensive assignments, large lab projects, extensive quizzes, exams and similar type projects: Normal return time to students in one (1) to two (2) weeks.

RECOMMENDED STUDENT COMPETENCIES/SKILLS

Student success will be enhanced by familiarity with hand and power tools, the ability to read measurements in both imperial (inches) and metric units, and working knowledge of electronic communication programs and techniques such as Microsoft Word and file download and attachment processes.

AUTHORIZED TOOLS

Students may use any/all course materials, including books and notes, while participating in classroom activities. All quizzes and written assignments are to be completed independently; no collaboration with classmates is permitted and any instance of such will be considered academic dishonesty.

LATE WORK

All work (projects, homework and presentations) must be submitted **at the beginning of class** on the day it is due. Due dates for projects and homework are on your outline, so there should be no surprises. Late submissions of assignments and projects will be accepted within one week, with 10% deducted for each day late. No late work will be accepted after one week without prior arrangements. Work is considered late after the start of class on the day it is due unless I advise you otherwise, or you have an excused absence on the due date. I reserve the right to modify this policy depending on individual circumstances.

Attendance at fitting labs is mandatory. Due to the required demonstrations and patient-model participation, it is not possible to provide make-up sessions for fitting labs. Please note the dates for all fitting labs on the syllabus and make every effort to attend. If you miss a fitting lab for an excused reason, documentation will be required.

TESTING

Tests may be administered in person or online through D2L. Please make arrangements in advance if you know you will miss a scheduled test. The availability of make-up exams for unexcused absences will be at the instructor's discretion.

OTHER LAB AND CLASSROOM POLICIES

Punctuality

Class begins at 1:00p.m. and roll is taken at that time. If you are not in class when roll is taken, you will be counted absent in accordance with the OSUIT attendance policy. If you arrive late, it is your responsibility to check with me and make sure your presence in class has been recorded. Punctuality is a professional skill required by both employers and our program. Consequently, excessive tardiness can affect your grade. If you are tardy three times, that will be counted as an absence. Please be on time to both lectures and open laboratory work sessions.

Cell Phones

Use of cell phones in class is not allowed. This includes both lecture classes and open laboratory time. Please turn your cell phone to silent or vibrate during the entire class. Do not leave a lecture to make or receive calls unless it is an emergency. If you need to make or receive a call during laboratory time, please step outside the lab to do so.

Lab Conduct

An instructor or member of the OSUIT staff must be present when students are working in the lab. No work of any kind may occur in the labs during lunch or before/after classes unless an instructor is present. Only students in the program are allowed in the lab. Students must complete their Machine Safety Checkout before using the lab for the first time.

Students may wear scrubs or casual clothing appropriate for working in the lab. No open toed shoe wear, high heels or sandals are allowed. All shirts must have sleeves. No ties, long necklaces or any other potentially dangerous items that could cause injury to the student or others are allowed in the lab. Hair longer than the collar must be tied back while working in the lab.

Homework and Research

You will be required to conduct light research in order to complete some of the homework assignments. Please make certain that you are familiar with OSUIT's online databases and journals, and the process for conducting searches within our system. If you need help with conducting online research, please make an appointment with Jenny Duncan in the library. She is glad to help.

Dress Code

Field trips, seminars and guest speakers: Casual professional (no jeans, shirts with collars).
Lecture classroom: Scrubs or casual clothing. Shirts must have sleeves and cover the midriff.
Fabrication Lab: Scrubs or casual clothing. Shirts must have sleeves and cover the midriff.
Closed toe shoes required.
Fitting Lab: Scrubs or casual clothing. Shirts must have sleeves and cover the midriff.
Closed toe shoes required.

Fitting labs are meant to simulate the professional environment, and participants will be held to professional standards of dress, hygiene, safety, and behavior. Gloves must be worn during fitting activities, and no chewing gum is permitted. Long hair must be put up or tied back. Students who do not meet this standards will not be allowed to participate in fitting lab, and no make-up lab will be offered.

SYLLABUS ATTACHMENT

View the Syllabus Attachment, which contains other important information, by visiting http://osuit.edu/center/student_syllabus_information

COURSE OUTLINE

See attached schedule.

OPT 2314: Prefabricated Orthotics and Pedorthics
Monday/Wednesday: 1:00-4:20p.m.

	<u>Topic</u>	<u>Activity</u>
1/08	Course Guidelines Fitter Overview	Lecture Lecture
1/10	Workplace Safety Practice Management	Lecture Lecture
1/15	MLK Holiday	No Class
1/17	A&P Overview Part 1	Lecture
1/22	Quiz: Practice Management A&P Overview Part 2 Cranial/Cervical Anatomy Bones Muscles Pathology of the Head and Neck Cervical Orthoses Types Fitting Parameters	Quiz Lecture Lecture Lecture Lecture
1/24	Fitting of Prefabricated Cervical Orthoses T/L Spinal Anatomy Bones Muscles Biomechanics T/L Spinal Pathologies Spinal Precautions The Nervous System Central Nervous System	Lab Lecture Lab Lecture
1/29	The Nervous System Peripheral Nervous System Lumbo-Sacral Orthosis LSO Overview LSO Rationale Cervical Section Quiz Review	Lecture Lecture Lecture
1/31	Quiz: Cervical Section Measuring for LSO Corset Fitting of LSO Corset Thoraco-Lumbo-Sacral Orthosis TLSO Overview TLSO Rationale	Quiz Lecture/Lab Lab Lecture

OPT 2314: Prefabricated Orthotics and Pedorthics
Monday/Wednesday: 1:00-4:20p.m.

2/05	<p>Fitting of TLSO Jewett Cash Semi-Rigid TLSO</p> <p>Upper Extremity Anatomy Bones Muscles Biomechanics Brachial Plexus</p> <p>Pathology of the Upper Extremity</p>	<p>Lab</p> <p>Lecture</p> <p>Lecture</p>
2/07	<p>Upper Extremity Orthoses Thoracic/Lumbar Quiz Review Fitting of Prefabricated UE Orthoses Shoulder Orthoses Elbow Orthoses WHO</p>	<p>Lecture</p> <p>Lecture</p> <p>Lab</p>
2/12	<p>Quiz: Thoracic/Lumbar Spine Section Normal Human Locomotion Pathological Gait</p>	<p>Quiz Lecture Lecture</p>
2/14	<p>Lower Extremity Anatomy Proximal to and Including the Knee Bones and Muscles Nerves Biomechanics</p> <p>Upper Extremity Quiz Review</p>	<p>Lecture</p>
2/19	<p>Quiz: Upper Extremity Section Pathology of the Lower Extremity Trauma Congenital and Degenerative Disorders</p> <p>LE Orthoses—Knee and Proximal</p>	<p>Quiz Lecture</p> <p>Lecture</p>
2/21	<p>Fitting of Prefabricated Knee Orthoses Lower Extremity Anatomy Distal to the Knee Bones and Muscles Nerves Biomechanics</p>	<p>Lab Lecture</p>

OPT 2314: Prefabricated Orthotics and Pedorthics
Monday/Wednesday: 1:00-4:20p.m.

2/26	Lower Extremity Pathology Trauma and Overuse Syndromes Congenital and Degenerative Disorders Lower Extremity Orthoses—Ankle and Foot	Lecture Lecture
2/28	Venous Insufficiency and Lymphedema Anatomy: Circulatory System SOAP Notes	Lecture Lecture Lecture
3/05	Compression Garments Types Fitting Parameters Fitting of Prefabricated AFOs Fitting of Compression Garments Anatomy of the Foot Bones and Muscles Biomechanics LE Quiz Review	Lecture Lab Lab Lecture Lecture
3/07	Foot Pathology Diabetes Mellitus Trauma and Pressure Injuries Shoes Types and Fitting Parameters Fitting of Prefabricated Shoes	Lecture Lecture Lab
Start of Pedorthics Section		
3/12	Quiz: Lower Extremity Section Pedorthics Overview Custom Fabricated Foot Orthoses Types Functional and Accommodative Materials	Quiz Lecture
3/14	Foot Impressions/Models Biofoam Cast Preparation Biofoam Impressions: Open Lab Foot Model Modification: Open Lab	Lecture/Demo Lab Lab
3/19-3/23	Spring Break	No Class
3/26	Prefab Final Exam Custom Soft FO Fabrication Custom Soft FO Fabrication: Open Lab	Exam Lecture/Demo Lab

OPT 2314: Prefabricated Orthotics and Pedorthics
Monday/Wednesday: 1:00-4:20p.m.

3/28	Shoe Modifications Rocker Soles/Lifts/Posts Indications/Contraindications Custom Soft FO Fabrication: Open Lab	Lecture Lab
4/02	UCBL Rationale Anatomy Pathologies UCBL Model: Open Lab	Lecture Lab
4/04	Custom Soft FO Due UCBL Cast Modifications Thermoforming UCBL Posting Finishing UCBL Fabrication: Open Lab	Project Due Lecture/Demo Lecture/Demo Lab
4/09	SOAP Notes Due Final Exam Review UCBL Fabrication: Open Lab	Assignment Due Lecture Lab
4/11	UCBL Foot Orthosis Due Partial Foot Prosthesis Partial Foot Prosthesis Model: Open Lab	Project Due Lecture Lab
4/16	Pedorthics Final Exam Partial Foot Prosthesis: Open Lab	Exam Lab
4/18	Partial Foot Prosthesis: Project Due Lab Clean-up	Project Due Lab

Schedule is subject to change at instructor discretion.